BRUHAT BENGALURU MAHANAGARA PALIKE

Executive Engineer Yelahanka Division

Name of Project: Consultancy Services for Preparation of DPR for the work of Improvements to roads, drains and other developmental works in Maruthinagara ward no- 01 under SWM head in Chief Minister Nava Nagarothan grants of Yelahanka division.(Package-05)

a) Improvements to roads at Maruthinagara 1st main and cross roads in kempegowda ward no -01 of yelahanka Sub division.
b) Improvements road at Maruthinagara 2nd main and cross roads in kempegowda ward no -01 of yelahanka sub division.
c) Improvements to roads at Maruthinagara 3rd main and cross roads in kempegowda ward no -01 of yelahanka sub division.
d) Improvements to roads and drains at Vinivink Shastry layout in kempegowda ward no-01 of yelahanka sub division.
e)Drilling of borewell and providing pipe line in kempegowda ward no -01 of yelahanka Sub division.
f)Improvements to balance road and drian at KHB colony and surrounding areas in kempegowda ward no -01 of yelahanka Sub division.

Abstract Cost Estimate

Sl. No.	Description	Unit	Quantity							Total Rate	Amount
			GO Sl NO-82	GO Sl NO-83	GO Sl NO-84	GO Sl NO-85	GO Sl NO-87	GO Sl NO-98	Total Qty.		
	1	2	3	4	5	6	7	8	9	10	11.00
1	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143. Item No.19.14	cum	621.11	604.80	837.20	789.60	0.00	0.00	2852.71	125.59	358271.85
2	KSRB 2-2.1 : Earthwork excavation by manual means for foundation of buildings, culverts, water supply and sanitary lines and electrical conduits etc, either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. including breaking of clods complete as per specifications. No. KBS 2.1 (a) I 2.3.5 page no 6	cum	487.01	1637.04	1594.75	710.52	0.00	1548.43	5877.75	399.07	2345633.69
3	KSRRB M300-19. Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per sepecification .MORTH Specification NO.301KBS Page No.144 Item No.19.2	cum	303.75	0.00	192.50	0.00	0.00	0.00	496.25	36.04	17884.85
4	KSRB 4-1.7 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 Item No.4.7	cum	84.15	244.95	220.60	125.22	0.00	251.43	926.35	5627.54	5213071.68

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5	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. Page No.270. Item No.37.59.1	cum	175.38	613.96	503.10	255.82	0.00	534.68	2082.94	7273.72	15150722.34
6	KSRRB M 2200-6 **Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking,** placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	Tn	11.58	37.74	30.19	15.86	0.00	33.08	128.45	72326.98	9290400.58
7	**Removing & Refixing of stone slabs of drains and pointing in C.M (1:3) page no-27. I. no-8.33**	Sqm	1012.50	0.00	990.00	0.00	0.00	0.00	2002.50	111.30	222878.25
8	**Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and** Finishing cutting , including form work, cost of alll materials, labour,hire charges of chinery,loading ,unloading ,lead and lift, transportation etc ,copmplete. (Data Rate)	Sqm	612.90	1465.20	1507.50	596.70	0.00	1192.50	5374.80	2337.00	12560907.60
9	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4** and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)	Sqm	59.40	57.60	0.00	28.80	0.00	94.20	240.00	5418.00	1300320.00
10	**Removing and resetting of kerb stones** Page No.270. Item No.37.57	Nos	2825.33	373.33	1222.22	0.00	0.00	0.00	4420.88	104.94	463927.15

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15	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method byrotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. Page No.153. Item No.20.6	cum	91.13	302.40	615.15	0.00	0.00	0.00	1008.68	1855.00	1871101.40
16	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. Page No. 155. Item No.20.18	cum	91.13	302.40	355.50	0.00	0.00	0.00	749.03	2001.28	1499018.76
17	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158 I No-21.6)	sqm	607.51	2016.00	2370.00	0.00	0.00	0	4993.51	33.92	169379.86
18	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 Page No.158. Item No.21.2	Sqm	12007.00	0.00	0.00	0.00	0.00	5863	17870.00	5.30	94711.00
19	KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50 mm to 75mm) with 4.5% VG-30 Bitumen. Page No.160. Item No.21.17.2	Cum	115.19	50.40	59.25	0.00	0.00	172.22	397.06	7620.34	3025732.20

20	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 Page No.158. Item No.21.7	Sqm	12007.00	2016.00	2370.00	0	0.00	5863.00	22256.00	12.72	283096.32
21	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP- 53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) Page No. 171. Item No.21.78.12	Cum	480.28	80.64	94.80	0	0.00	234.52	890.24	8699.42	7744571.66
22	Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing Page No.180. Item No.24.2	Nos	950.00	334.00	500.00	0	0.00	246.50	2030.50	137.80	279802.90
23	KSRRB M800- 5.2 Over Head Sign Board: Supply and Installation of retro- reflection Over-Head Gantry sign boards made out of cube corner IRC:67:2012 specification and fixed over 4mm thick aluminium composite panel sheet having minimum 0.3mm thick aluminium skin on both sides excluding the cost of back support frame, vertical support and horizontal support and foundation. as directed by the engineer incharge of the work Page No.181. Item No.24.6	sqm	11.10	0.00	0.00	0	0.00	0.00	11.10	10096.50	112071.15

24	**KSRRB M800-4. Direction and Place Identification Signs / Project Information Board with size more than 0.9 sqm Size Board:-Providing and erecting direction and place identification retro- reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing. Page No.180. Item No.24.4**	Sqm	5.00	2.00	1.00	0	0.00	4.00	12.00	7567.34	90808.08
25	**KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:-** Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182. Item No.24.15	Sqm	741.30	116.80	136.23	217.30	0.00	190.30	1401.93	454.74	637513.65
26	for Rain water harvesting work including 40mm jelly, 20mm jelly coarse sand, fine sand, 12.50 mm chips as per data rates	Nos	6	1.00	1.00	4.00	0.00	2.00	14.00	20882.00	292348.00
27	KSRRB M300-55. Construction of sub-grade and earthen shoulders with approved material Grave/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cos of earth, watering charges & compaction by vibratory roller to 97% of modified proctors density) MORTH Specification No. 305 Page No 147 Item no 19.62 SR 2018-19	cum	0	0	711	0	0.00	0	711.00	369.94	263027.34
28	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12 13 SR)	Each	0	0	0	0	5.00	0	5.00	2065.00	10325.00

29	**Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m.** fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc..) (P.NO-47, I.NO-9.1, PRED 12-13 SR)		0	0	0	0	0	0	0.00	0	0.00
30	0.00 to 50.00 Mtr.	Mtr	0	0	0	0	250.00	0	250.00	315.80	78950.00
31	50.00 to 100.00 Mtr.	Mtr	0	0	0	0	250.00	0	250.00	412.60	103150.00
32	100.00 to 150.00 Mtr.	Mtr	0	0	0	0	250.00	0	250.00	458.35	114587.50
33	150.00 to 200.00 Mtr.	Mtr	0	0	0	0	250.00	0	250.00	484.10	121025.00
34	200.00 to 250.00 Mtr.	Mtr	0	0	0	0	250.00	0	250.00	560.32	140080.00
35	250.00 to 300.00 Mtr.	Mtr	0	0	0	0	250.00	0	250.00	600.49	150122.50
36	300.00 to 350.00 Mtr.	Mtr	0	0	0	0	250.00	0	250.00	622.00	155500.00
37	**Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick** black electric resistance continous welded mide steel tube material confirming to IS 1387/1993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR)	Rmt	0	0	0	0	250.00	0	250.00	1325.00	331250.00
38	Providing and fixing 250mm dia PVC pipe and as per specification and directions. (BWSSB SR 13-14, P.No.53 I.no.1 of sl.no.11.)	Rmt	0	0	0	0	30.00	0	30.00	1100.00	33000.00
39	175 mm dia M.S. Casing cap (P.NO-III, I.NO-65, PRED 12-13 SR)6	Each	0	0	0	0	5.00	0	5.00	100.00	500.00
40	supply of 175mm M.S collars each (P.NO-III, I.NO-86, PRED 12-13 SR)	Each	0	0	0	0	35.00	0	35.00	150.00	5250.00
41	Supply & delivery at site brand new texmo/innoval/kubi/sabar /Alalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 15HP/11KW 25 stage (P.NO-XLII, I.NO-41, PWD SR-2018-19)	Nos	0	0	0	0	5.00	0	5.00	63988.90	319934.50
42	**Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings** such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc, complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe **(PWD SR-2018-19, P.No.92 I.no. 13.6)**	Rmtr	0	0	0	0	1500.00	0	1500.00	542.72	814080.00
43	**supply of 50mm M.S collars**	Each	0	0	0	0	250.00	0	250.00	212.00	53000.00

44	**Supplying and drawing 3 core PVC sheathed submersible pump cable manufactured** with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS: 8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 volts 4 sqmm of 56 strands 0.3mm dia (P.NO-535, I.NO-30 (c), Group A BWSSB 13-14 SR)	Rmt	0	0	0	0	2700.00	0	2700.00	164.29	443583.00
45	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door . canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above 6.50 HP to 15.00 HP with star delta starter (MR)	Nos	0	0	0	0	5.00	0	5.00	14800.00	74000.00
46	**Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting**, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enametled metal paint etc,. complete box of 21600 sq cm (P.NO-530, I.NO-39 b, BWSSB SR 13-14)	Sqm Cm	0	0	0	0	110000.00	0	110000.00	0.34	37400.00
47	Providing & Fixing of clamps set and borewell cap to the pump (MR)	No's	0	0	0	0	5.00	0	5.00	1800.00	9000.00
48	Supplying & delivery of brand new best make non return valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark (50mm Gate wheel Valve. (PWD SR-2018-19, P.NO.XXV, Sl.no, 647)	No's	0	0	0	0	5.00	0	5.00	1016.95	5084.75
49	Supplying and delivery of brand new best make Gate Valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark . 50mm Gate Valve for distributer pipeline. 50mm dia (PWD SR-2018-19, P.NO.XXVI, Sl.no, 661)	No's	0	0	0	0	10.00	0	10.00	1482.21	14822.10
50	Providing and fixing of 50mm GI Shortbend to motor (PWD SR-2018-19, P.NO.XXXIX, G.I. Pipe Fittings - ISI Standards Table)	No's	0	0	0	0	9.00	0	9.00	232.14	2089.26
51	Providing and fixing of 50mm GI union to the motor (PWD SR-2018-19, P.NO.XXXIX, G.I. Pipe Fittings - ISI Standards Table)	No's	0	0	0	0	9.00	0	9.00	237.12	2134.08
52	suppling & fixing of 50mm GI Elbow PWD SR 18-19 XXXIX	No's	0	0	0	0	5.00	0	5.00	111.80	559.00
53	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) (P.No - 564, I.No - 3, BWSSB SR 13-14)	Per length	0	0	0	0	250.00	0	250.00	90.64	22660.00

54	Erection of combined panel board meter board with all necessary materials and labour including providing CC 1:3:6 foundation bed etc,. Complete for basement out door type. (MR)	No's	0	0	0	0	5.00	0	5.00	475.00	2375.00
55	Supplying and fixing miniature circuit breakers/isolators in existing MCB distribution boards using necessary fixing materials and wiring complete as required, 40 to 63 Amps DP (P.NO - 526, I.NO - 13D (a), BWSSB SR 13-14)	No's	0	0	0	0	5.00	0	5.00	906.40	4532.00
56	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) (P.NO - 553, I.NO - 10 (d), BWSSB SR 13-14)	Mtr	0	0	0	0	175.00	0	175.00	169.95	29741.25
57	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces (P.NO - 554, I.NO - 12 (b), BWSSB SR 13-14)	Mtr	0	0	0	0	175.00	0	175.00	56.65	9913.75
58	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mm (P.NO - 555, I.NO - 15 (b), BWSSB SR 13-14)	Mtr	0	0	0	0	15.00	0	15.00	249.26	3738.90
59	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia (P.NO - 552, I.NO - 7 , BWSSB SR 13-14)	No's	0	0	0	0	5.00	0	5.00	1699.50	8497.50
60	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc, (P.NO - 555, I.NO - 16 (b) , BWSSB SR 13-14)	No's	0	0	0	0	5.00	0	5.00	271.92	1359.60
61	Supplying shunt capacitor's confirming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rooting machinery capacitor in KVAR rating No's. (MR)	No's	0	0	0	0	5.00	0	5.00	1350.00	6750.00
62	Providing and fixing Gun Metal Gate wheel valve confirming to IS specification of approved make as per direction including all lead and lift etc,. Complete. 50mm dia (P.NO - 94, I.NO - 13.79.6, PWD SR-2018-19)	No's	0	0	0	0	5.00	0	5.00	778.04	3890.20
63	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches (P.NO - 521, I.NO - 2 (f), BWSSB SR 13-14)	No's	0	0	0	0	5.00	0	5.00	311.58	1557.90
64	Erection of pumping machineries PRE SR 12-13 pg 51/10.3.20	No	0	0	0	0	5.00	0	5.00	900.00	4500.00
65	Bescom Deposit charges	L/S	0	0	0	0	5.00	0	5.00	13300.00	66500.00
66	Borewell registration charges per Rs 1000 each for BWSSB	Nos	0	0	0	0	5.00	0	5.00	1000.00	5000.00

67	KSRB 2-2.2 - Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinery soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5(Page No.5 , Item No.2.4,PW,P & IWTD SR 2018-19)	cum	0	0	0	0	459.00	0	459.00	316.94	145475.46
68	KSRRB 13-9: Providing and fixing to wall ceiling and floor high density polyethylene pipes 6.00Kgf/sqm.cm working pressure of outside diameter raising mains & exposed distribution pipes with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of materials, labour charges, HOM and testing complete as per Specifications. Specification No. KBS 13.2.15.2/13.9, KSRB 13-9.4 -do-63mm dia (Page no.94, Item No.13.73.2)	Rmt	0	0	0	0	840.00	0	840.00	394.32	331228.80
69	KSRRB M400- Wet Mix Macadam KSRRB M400-17 Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406	cum	0	0	0	0	75.60	0	75.60	2001.28	151296.77
70	Filling available earth around pipe lines cable in layers not exceeding 20cms, in depth compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost all labour complete as per specifications (Page No.6 Item No. 2.10)PW,P&IWTD SR 2018-19	Cum	0	0	0	0	459.00	0	459.00	213.06	97794.54
									Sub total		83199888.86
									11 % GST		9983986.66
									DPR and PMC 2 %		1663997.78
									Tender premium 6 %		4991993.33
									Miscellaneous & Rounding off		160133.37
									Total Amount		100000000.00

Technical Sanction Accorded For RS 1000: Lakhs only
Head of A/C Annual Maintenance CER NO :218 Dt 28.11.2019

Administrative Sanction for Rs. 1000.00 lakhs
ten Crores only
accorded under head 2018-19
Chief minister discretionary grant

Executive Engineer

Registered as CE No. ..... Subject
to conditions contained in enclosed memo
No EE/YNK/AS/98/2019-20 Dt 7-12-2020

CTAL CE (YNK)

CERTIFICATE:

1 The work spot has been inspected by me and the work is found to be necessary.
2 The estimate is prepared as per PW, P&IWTD S.R Bangalore circle for the year 2018-2019.
3 The Provisions made in the estimate are quite necessary and adequate.
4 The area comes with in the BBMP limits.

Assistant Engineer
Yelahanka Sub Division
BBMP

Assistant Executive Engineer
Yelahanka Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP

AARIN ASSOCIATES BANGALORE